STRUCTURAL PLANS EXAMINER

DISTINGUISHING FEATURES

The fundamental reason the Structural Plans Examiner exists is to perform professional level Structural Engineering plan review (under the technical guidance of the Senior Structural Engineer). This includes structural engineering review of complex building plans for new construction, alteration, and repairs to ensure compliance with City building codes and national standards. Additionally, this position serves as a project coordinator for the multidisciplinary review (planning, fire safety, civil, native plant) of building projects. Provides technical advice and assistance to architects, engineers, and contractors on code compliance problems and to field inspectors in the interpretation of construction plans and in the resolution of difficult construction code interpretation problems. Structural Plans Examiner's work is performed under the technical direction of a Senior Structural Engineer and the general supervision of a Coordination Manager in Planning and Development Services. This classification is not supervisory. This position performs a skill leadership as well as a project coordinator role in the review of building plan projects. The Structural Plans Examiner is distinguished from the Sr. Structural Engineer by dealing with structural engineering problems of greater complexity and more detailed application of structural engineering theory and technical leadership.

ESSENTIAL FUNCTIONS

Reviews and examines complex plans and specifications to determine if they comply with life safety and public access provisions of City and national codes. Provides alternative design criteria and solutions to non-conforming plan.

Performs engineering computations to analyze building structural systems, structural members, connections and assemblies for structural integrity and compliance with applicable construction codes.

Identifies inadequacies found on structural and architectural documents and specifications and outlines corrective remedies to meet city adopted building codes.

Coordinates the multidisciplinary review (review of project construction documents from initial submittal through approval of final plans, and through the construction phase.

Investigates the suitability of materials and methods of construction for compliance with construction codes.

Responds to questions related to construction codes, department policies and procedures which are submitted by the public.

Studies & evaluates site specific geotechnical investigation reports and recommended construction design values as well as bearing strata suitability. Determines if special inspection is required for special "grading, compaction and fill" of existing undisturbed soil and imported structural fill. Where special inspection is required sets limits & parameters of special inspection in accordance to applicable codes and soils mechanics.

Functions as project manager for the construction document from initial plan submittal through approval of the final plans, and through the construction phase.

Conducts field and site visits upon request by the Inspection Department to evaluate inquiries, (or conditions, or deficiencies,) identify potential problems and suggest corrective measures.

Evaluates building structural systems for both geometric integrity, and internal /external stresses resulting from applied gravity & lateral loads including but not limited to superimposed dead, live, wind, seismic, thermal, centrifugal and earth pressure loads.

Holds conferences with developers, owners, architects, and engineers relating to plan design data, code interpretations, and the resolution of design problems affecting life safety.

Recommends changes in codes to resolve design and interpretation problems and to accommodate and control new materials and new design concepts.

Demonstrates continuous effort to improve operations, decrease turnaround times, streamline work processes, and works cooperatively and jointly to provide quality seamless and consistent customer service.

Reviews residential and commercial plans for compliance with provisions of adopted UBC, UMC, UPC, NEC, UFC, ADA and administrative policies.

Assists Civil Plan Review Department and Capital Project Management Department in reviewing: Bridges; Retaining walls; Head walls; Flood walls; Special Traffic Signs and Structures; Culverts; Guard Rails; Drainage structures; and soil stabilizing structures. Review of plans for departments outside building department requires thorough knowledge of: “City of Scottsdale Design Standards and Policies Manual”; “Supplemental Standard details and Specifications for Public Work Construction”; "American Association Of State Highway and Transportation Officials Standard Specifications for Highway Bridges"; "Arizona Department of Transportation Standard Drawings"; and “Marcia Association of Governors Specifications".

Be a motivated employee with ability to self study to update his/her knowledge of structural engineering with evolving engineering technology, and continuous changes of constructions codes. Also attend seminars and study to keep up with continuous modifications and changes to Uniform Building Code; American Concrete Institute Building Code Requirements and other literature; American Institute of Steel Construction manual and all related areas in hot rolled steel shape construction; Building Code Requirements for Masonry Structures; and National Design Specification for Wood Construction. Also shall be familiar with PTI, CRSI, SJI, SDI, AWS, AISI, and APA publications and continuously keep updating to latest editions of all adopted building codes.

MINIMUM QUALIFICATIONS

Knowledge, Skills, and Abilities

Building construction, standard construction materials and advanced analysis and design concepts including computerized design calculations.
Basic structural engineering in the design of reinforced concrete, steel, masonry, and timber as applied to construction of buildings and structures.
Nationally recognized codes and standards and related city ordinances, such as the Uniform Building code, NFPA Standards, AISC.AISI. AITC, CRSI, ACI, SDI, SJI, PTI and NDS.

Ability to:

Operate a variety of standard office equipment, including a personal computer, a variety of computer software and other equipment essential to performing daily activities that requires continuous and repetitive eye and arm or hand movement.
Establish and maintain effective working relationships with city staff, design and construction community as well as citizens.
Listen and communicate effectively with a diverse group of people.
Use professional judgment and common sense in the application and enforcement of the intent of code requirements.
Objectively interpret and consistently apply codes requirements and related standards in accordance with department policies.
Read and accurately interpret building construction plans and specifications of any complexity.
Maintain regular consistent attendance and punctuality.

Education & Experience

Any combination of education and experience equivalent to a bachelor's degree in Structural, Architectural or Civil Engineering or related fields with three years of experience in building construction industry relating to structural engineering for buildings or similar structures.

Must be registered as a Professional Engineer with proficiency in Structural or Civil Engineering at time of hire or be qualified and obtain Arizona professional registration as a Civil Engineer Or Structural Engineer within one year after hire.

FLSA Status: Exempt HR Ordinance Status: Unclassified